

# **Chidago Canyon**

*CA-010-079*

## CHIDAGO CANYON WILDERNESS STUDY AREA (WSA)

(CA-010-079)

### 1. THE STUDY AREA — 20,365 acres

The Chidago Canyon WSA is located in southern Mono County, approximately 12 miles north of Bishop, California. The WSA includes 19,702 acres of BLM land, 663 acres of State land and no private inholdings (see Map 1 and Table 1).

The northern boundary of the WSA follows Red Rock Canyon County Road to the east, then heads south along Fish Slough Road. The boundary turns west along an improved ranching road until it meets a 750-KV powerline right-of-way. The western boundary proceeds north along the right-of-way until it intersects Red Rock Canyon Road.

The WSA is situated in the western margin of the Basin and Range geomorphic province and lies entirely within the central portion of the Volcanic Tableland, a geological product of cinder and hot gas eruptions from vents in Long Valley which occurred 700,000 years ago. This unique landscape is generally characterized as a series of overlying rhyolitic ash deposits which culminate in a rolling tableland terrain feature. The WSA gently slopes downward to the east. Elevation ranges from 4,400 feet to 6,000 feet. Chidago Canyon incises the area up to several hundred feet deep and runs in a south-easterly direction near the southern border. Volcanic terraces, rounded hills, en echelon scarps (a series of parallel scarps formed by faulting activity), and Chidago Canyon contribute to the scenic and landform variety of the WSA. The vegetation, which is uniformly distributed throughout, consists mostly of Great Basin shrubs.

The eastern half of the WSA is part of the Fish Slough Area of Critical Environmental Concern (ACEC). The ACEC management plan prescribes protection of the aquifer recharge source within the WSA in order to maintain the wetland habitat, which lies outside, and adjacent to the WSA.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA). Various suitability recommendations were analyzed in the Draft and Final Environmental Impact Statements (EIS) for the Benton-Owens Valley/Bodie-Coleville Wilderness Study Areas. A summary of the area's wilderness values was included in the Final EIS. Three different suitability recommendations were analyzed in the EIS: all wilderness, partial wilderness recommending approximately 41% of the area suitable, and no wilderness.

2. RECOMMENDATION AND RATIONALE —

0 acres recommended  
for wilderness  
19,702 BIM acres recommended for  
nonwilderness

No wilderness is the recommendation for this WSA. The entire acreage in this WSA is released for uses other than wilderness. The all wilderness alternative is considered to be the environmentally preferred alternative as it would result in the least change from the natural environment over the long term. The no-wilderness alternative will be implemented in a manner which will use all practical means to avoid or minimize environmental impacts.

The WSA is recommended non-suitable because its potential for mineral occurrence, motorized recreation, and future transmission line expansion needs outweigh the area's wilderness values. In addition, manageability was a strong consideration in the non-suitable recommendation.

Solitude can be disrupted visually and by noise during winter months from local motorized recreation activity. This use occurs primarily on weekends and on existing routes. Additionally, man-made visual influences outside the WSA such as, a 750 kV electric transmission line along the western boundary and periodic vehicle use on the eastern boundary road, affect solitude along the WSA's borders. Some portions of the WSA allow unobstructed views of the transmission line up to a distance of one and one-half mile.

Resource conflicts in the WSA include moderate potential for metallic minerals in the WSA's western quarter, moderate potential for nonmetallic minerals in the eastern two-thirds of the WSA and moderate potential for geothermal resources throughout the WSA. There is current interest in the area to quarry decorative building stone known as Bishop tuff. Development of mining claims which are found to have valid existing rights could impair the area's wilderness values with or without wilderness designation.

The Benton-Owens Valley Management Framework Plan prescribes a half-mile wide utility line corridor along four and one-half miles of the western boundary. This corridor lies within the WSA one-quarter mile east of the present transmission line boundary. There is a high current demand for use of this corridor. Most recently, Oxbow Geothermal Corporation has demonstrated a need to utilize this corridor for construction of an electric transmission line. Additionally, several utility/energy organizations have expressed support to accommodate future use in this corridor.

The WSA provides suitable opportunities for motorized recreational use. Approximately 25 miles of primitive vehicle routes are located in the WSA. Most of these routes are located north of Chidago Canyon. In addition, there are 11 miles of trail systems in the WSA, used primarily by motorcyclists and horseback riders. The motorcycle use occurs in this snow-free area from November to April. During the summer, the WSA is too hot and dry for these uses. It is expected that demand and use of this area for motorized recreational activities will increase.

The WSA's relatively flat, broad topography renders it vulnerable to vehicle encroachment. The lack of natural barriers would make it extremely difficult to manage as wilderness.

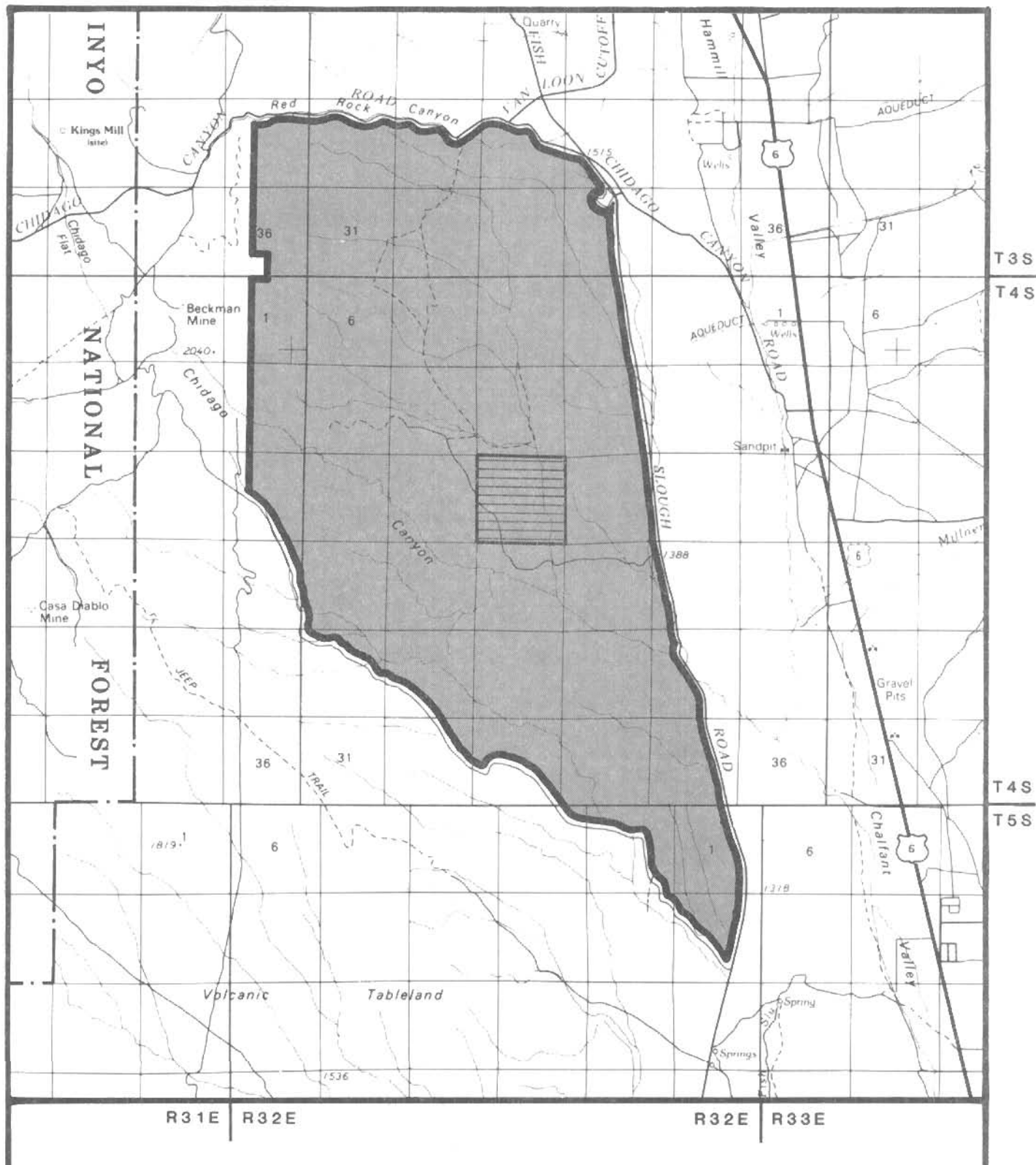
TABLE 1 - Land Status and Acreage Summary of the Study Area

<u>Within Wilderness Study Area</u>		<u>Acres</u>
BLM	(surface and subsurface)	19,702
Split Estate	(BLM surface only)	0
Inholdings		
State		663
Private		0
Total		20,365
<u>Within the Recommended Wilderness Study Boundary</u>		<u>Acres</u>
BLM	(within WSA)	0
BLM	(outside WSA)	0
Split Estate	(within WSA)	0
Split Estate	(outside WSA)	0
Total BLM Land Recommended for Wilderness		0
Inholdings		
State		0
Private		0
<u>Within the Area Not Recommended for Wilderness</u>		<u>Acres</u>
BLM	(surface and subsurface)	19,702
Split Estate	(BLM surface only)	0
Total BLM Land Not Recommended for Wilderness		19,702

### 3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATIONS

#### A. Wilderness Characteristics

1. Naturalness: The Chidago Canyon WSA has generally retained its primeval character and influence. The WSA is a gentle, rolling landscape sloping in an easterly direction. Volcanic terraces, rounded hills, an echelon fault scarps, and a major canyon comprise the unit. The WSA supports a uniform composition of shadscale scrub such as spiny hopsage, shadscale, ephedra, and dalea. During certain years, wildflowers are prevalent. During the wilderness inventory, it was determined that only a few primitive vehicle routes were located in the WSA. Upon further review, it was determined that man's works actually include approximately 25 miles of primitive vehicle routes and 11 miles of motorcycle and equestrian trails. In addition, the unit contains



- |   |   |                            |   |              |
|---|---|----------------------------|---|--------------|
|  | NONE  | RECOMMENDED FOR WILDERNESS |  | SPLIT ESTATE |
|  | RECOMMENDED FOR NONWILDERNESS               |                            |  | STATE        |
|  | LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS |                            |  | PRIVATE      |

**Chidago Canyon  
Proposal  
MAP-1**



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several livestock water troughs, a pipeline, two water storage tanks and three wildlife guzzlers. However, the sizeable expanse of this WSA reduces these influences to a low level of significance.

2. Solitude: The WSA's size and gently rolling topography provide outstanding opportunities for solitude and freedom of unconfined movement. Chidago Canyon, due to its deeply incised nature, enhances these opportunities in the southern portion of the WSA. An electric transmission line parallels the western boundary just outside the WSA and visually affects opportunities for solitude on a limited and localized basis.

Additionally, the outside visual and noise influences of periodic vehicle use on the eastern boundary road slightly diminish solitude along the WSA's eastern edge.

This WSA may be overflown in the future by military aircraft as part of the national defense mission during approved military operations. The visual intrusions and associated noise create temporary effects on solitude which are deemed acceptable and necessary as a part of the defense preparedness of the nation.

3. Primitive and unconfined recreation: Opportunities for primitive and unconfined types of recreation abound within the WSA. Area visitors can participate in backpacking, camping, nature appreciation, historical sightseeing, scenic photography, hunting, horseback riding, and other activities. No permanent water sources exist in the unit; backpacking is limited by the need to carry or cache water. Most primitive recreation activities would occur in the cooler winter and spring months.
4. Special features: The WSA contains numerous features of significance. The area contains geological curiosities including rhyolitic columns in Chidago Canyon and fault scarps. Wildlife values of the WSA include nesting habitat for golden eagles and other raptors in the Red Rock and Chidago Canyons. The WSA also contains crucial winter habitat for mule deer who rely on the unit's topographical relief for protective cover from the Tableland's strong winter winds. Portions of the WSA are rich in cultural values, including petroglyphs.

#### B. Diversity in the National Wilderness Preservation System (NWPS)

1. Assessing the diversity of natural systems and features as represented by ecosystems: This WSA contains 19,702 acres of the Intermountain Sagebrush/Great Basin Sagebrush ecosystem. The Chidago Canyon WSA would not increase the diversity of the types of ecosystems represented in the NWPS.

Table 2 - Ecosystem Representation

Bailey-Kuchler Classification Domain/Province/PNV	NWPS Areas		Other BLM Studies	
	areas	acres	areas	acres
<u>NATIONWIDE</u>				
Intermountain Sagebrush/ Great Basin Sagebrush	1	32,407	55	1,185,573
<u>CALIFORNIA</u>				
Intermountain Sagebrush/ Great Basin Sagebrush	0	0	19	201,107

2. Expanding the opportunities for solitude or primitive recreation within a day's driving time (five hours) of major population centers: The WSA is within a five-hour drive of four major population centers. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a five-hour drive of the population centers.

Table 3 - Wilderness Opportunities for Residents of Major Population Centers

Population Centers	NWPS Areas		Other BLM Studies	
	areas	acres	areas	acres
<u>California</u>				
Bakersfield	32	4,071,358	128	3,998,548
Los Angeles/Long Beach	27	2,876,234	135	4,958,751
Riverside/San Bernardino	22	2,031,054	205	7,658,649
<u>Nevada</u>				
Reno	39	4,647,230	170	6,904,809

3. Balancing the geographic distribution of wilderness areas: The WSA is within 50 air miles of one BLM WSA recommended for wilderness designation. The John Muir and the Ansel Adams Wilderness, 15 and 30 miles to the west, respectively, are the nearest designated wilderness areas. These wilderness areas are administered by the Inyo National Forest. Other nearby designated wilderness areas include Yosemite and Sequoia-Kings Canyon National Parks which are managed by the National Park Service (NPS) and the Hoover Wilderness which is managed by the Toiyabe and Inyo National Forests.



C. Manageability

The Chidago Canyon WSA is manageable as wilderness, but only with difficulty. The gentle nature of the rolling landscape and its sparse vegetation make the WSA very susceptible to physical scarring from activities related to indiscriminate off-highway vehicle use. Frequent signing, fencing most of the border, providing detailed maps, and intensive patrolling would be required to insure the integrity of the unit. The broad, flat nature of the WSA is easily penetrated by vehicles of all types. The WSA contains few natural barriers to prevent vehicles from entering the area. Constant surveillance would be required to protect the area's wilderness values.

Military overflights in this WSA must be considered to maintain the integrity of the existing and future national defense mission as well as the wilderness resource.

D. Energy and Mineral Resource Values

1. Summary of information known at the time of the preliminary suitability recommendation: The southern half of the Chidago Canyon WSA lies within the BLM Casa Diablo Geology - Energy - Minerals (G-E-M) Resource Area (GRA) and the northern half lies within the Benton Range GRA. The G-E-M data in the Affected Environment section of the 1987 BLM Wilderness Recommendations, Benton-Owens Valley/Bodie-Coleville Study Areas Final EIS, indicate that the WSA has a moderate potential for occurrence of gold, silver, lead, tungsten, building stone and geothermal energy. As of the spring of 1986, one unpatented mining claim had been located for metallic minerals in the northwestern corner of the WSA.

The GRA report showed that the WSA lies on the eastern edge of the Chidago Mining District. The Chance, Beckman, and Casa Diablo mines are one half mile to three miles west of the WSA and are credited with approximately \$200,000 worth of gold production. Mineralization in this district is characterized by gold, silver, and base metal bearing quartz veins in Cretaceous granitic intrusive rocks. This geologic environment is present in a strip of land one half mile wide along the western side of the WSA. This area was, therefore, rated as having a moderate potential for the occurrence of these metallic minerals using the BLM mineral classification scheme.

The eastern one half of the WSA has moderate potential for the occurrence of non-metallic minerals due to the presence of Bishop tuff. Bishop tuff is a common variety decorative building stone currently in demand. The entire WSA is classified as having a moderate potential for geothermal energy based on the proximity of potential volcanic heat

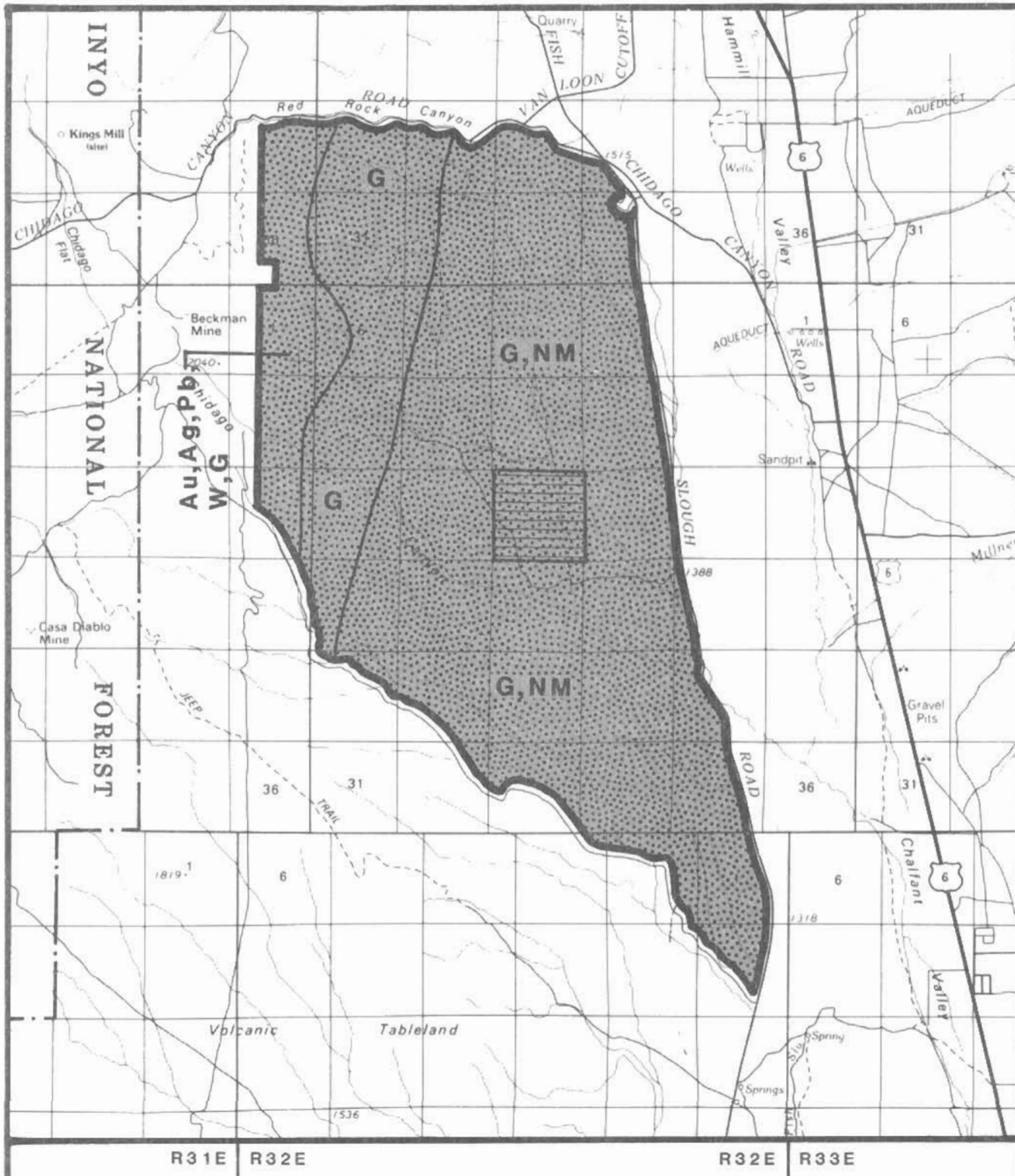


sources and the existence of thermal springs north and south of the WSA. These BLM mineral potential ratings are shown on the accompanying mineral potential map.



2. Summary of significant new mineral resource data collected since the suitability recommendation, which should be considered in the final recommendation: No U.S. Geologic Survey (USGS) or U.S. Bureau of Mines (BOM) mineral surveys were conducted in this WSA. BLM records dated March 25, 1988, indicate that no unpatented mining claims, mineral leases, or mineral material sales contracts/permits exist in the WSA. No new mineral resource information concerning this WSA was generated as of May 3, 1988.

E. Impacts on Resources

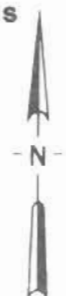
The following table summarizes the effects on pertinent resources for all alternatives considered including designation or non-designation of the entire area as wilderness. (For a full explanation of this summary, refer to the Benton-Owens Valley/Bodie-Coleville Wilderness - Final Environmental Impact Statement.)



- |   |   |
|---|---|
|  | NONE Recommended for Wilderness             |
|  | Recommended for Non Wilderness              |
|  | Land outside WSA Recommended for Wilderness |
|  | Split Estate                                |
|  | State                                       |
|  | Private                                     |

- Explanation**
- |   |  |
|---|--|
|  | High Potential for the Occurrence of Energy and/or Non-energy Minerals     |
|  | Moderate Potential for the Occurrence of Energy and/or Non-energy Minerals |
| <b>M</b>  | Moderate Mineral Potential Location in a High Mineral Potential Area       |
| <b>H</b>  | High Mineral Potential Location in a Moderate Mineral Potential Area       |

- Commodity Symbols**
- |           |              |
|-----------|--------------|
| <b>Ag</b> | Silver       |
| <b>Au</b> | Gold         |
| <b>G</b>  | Geothermal   |
| <b>NM</b> | Non-metallic |
| <b>Pb</b> | Lead         |



**Chidago Canyon  
Mineral Resource Potential**



**Map-2  
010-079**

Table 4 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Wilderness Values	<p>Wilderness values, particularly naturalness, solitude, and primitive and unconfined recreation would be adversely impacted by mining activities and development of the transmission line corridor. Additionally, projected levels of motorized recreation use as well as continued livestock operations and projected livestock projects, would result in slight to minor impacts on naturalness and solitude. Overall, there would be a direct loss of naturalness on 105 acres with the perception of naturalness impaired over an area of 4,690 acres primarily in the northwest portion of the WSA. Solitude would be disrupted within 2,000 acres as a result of mining operations. Short-term impacts ranging from negligible to minor would occur as a result of construction and maintenance of livestock projects. Crucial winter habitat for mule deer would be lost on 100 acres as a result of the underground gold mining activities. Geologic features could be impacted or lost on</p>	<p>Wilderness designation would retain and slightly enhance wilderness values in the WSA by eliminating motorized recreation use (500 visitor days) as well as precluding mining for decorative building stone and development of the transmission line corridor within the WSA along the western boundary. Wilderness values in the northwest portion of the WSA would be adversely affected by development of an underground gold mine due to the high probability of determination of valid existing rights. Construction and maintenance of existing and proposed livestock facilities would result in slight to minor localized impacts on naturalness and negligible to minor short-term impacts on solitude. Overall, naturalness within the WSA would be lost on 100 acres with the perception of naturalness impaired in 2,290 acres. Solitude would be diminished on 2,000 acres as a result of mining activities. Crucial mule deer winter habitat would be lost and geological features could be</p>	<p>Designation of 8,326 acres within the WSA as wilderness would result in slight positive benefits to the area's wilderness values particularly naturalness and solitude as a result of eliminating 150 visitor days of motorized recreation use and prohibiting mining of decorative building stone. Opportunities for primitive and unconfined recreation and special features would be slightly enhanced.</p> <p>Within the 12,015 acres of the WSA not designated wilderness, projected motorized recreation use (600 visitor days), development of an underground gold mine, construction and maintenance of livestock projects and development of the transmission line corridor would adversely affect wilderness values. Naturalness would be lost on 100 acres and the perception of naturalness would be impaired on 4,290 acres. The sense of solitude would be diminished within 2,000 acres surrounding the projected underground gold</p>

Table 4 - Comparative Summary of the Impacts by Alternative (Cont'd)

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Wilderness Values (continued)	105 acres as a result of mining activities. Throughout the remainder of the WSA no impacts other than very negligible impacts are anticipated for special features including raptor nesting habitat and cultural values.	lost on 100 acres as a result of mining activities.	mine. Additionally, construction of the transmission line corridor would result in localized, short-term impacts. Approximately 100 acres of crucial mule deer winter habitat would be lost in the northwest portion of the WSA. Overall, there would be a minor impact to wilderness values with moderate, localized impacts anticipated.
Motorized Recreation Use	There would be no impacts on motorized recreation use which is anticipated to increase slowly from the existing 500 visitor days to a total of 700 visitor days.	Motorized recreation use would be prohibited and 500 visitor days would be foregone within the WSA. Due to the projected low level of use within the WSA and the availability of opportunities on public lands outside the WSA, there would be a slight impact on motorized recreation use.*	There would be a slight impact as wilderness designation would preclude 150 visitor days of motorized recreation use within the designated portion of the WSA.* However, within the non-designated portion there would be no impacts on motorized recreation use with the current 350 visitor days. anticipated to increase to a total of 600 visitor days.
Transmission Line Development	There would be no impact on development of the one-half-mile-wide transmission line corridor. The one-quarter mile width within the WSA would be available for use along 4 1/2 miles of the western boundary.	There would be a minor impact on development of the transmission line corridor. Wilderness designation would preclude use of one-quarter mile of the one-half mile-wide corridor. The remaining one-quarter-mile width is outside the WSA and would be available for use.	There would no impact on development of the one-half-mile-wide transmission line corridor. The one-quarter mile width of the corridor within the WSA along 4 1/2 miles of the western boundary would be in the portion not designated as wilderness.

Table 4 - Comparative Summary of the Impacts by Alternative (Cont'd)

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Mining of Decorative Building Stone	There would be no impact on the mining of decorative building stone. Mineral sales would be permitted. A 5-acre quarry for Bishop tuff is projected for the WSA	Mining of decorative building stone, including a projected 5-acre quarry for Bishop tuff would be prohibited. There would be only a minor impact as Bishop tuff is available in areas outside the WSA.	There would be a minor impact on mining of decorative building stone within the 8,350 acres of the WSA designated wilderness. Wilderness designation would prohibit mineral sales including a projected 5-acre quarry for Bishop tuff.  Within the 12,015 acres not designated wilderness mineral sales would be permitted. However, no mining of decorative building stone is anticipated due to the lack of identified sources. There would be no impact.

\*Since this impact was identified in the Benton-Owens Valley/Bodie-Coleville Final EIS, it has been determined the prohibition of motorized vehicle use under this alternative would have greater (moderate) impacts than originally anticipated. The lack of snow-free areas during the winter use months as well as the potential for other local vehicle use restrictions outside the unit contribute to this reassessment of adverse impacts.

F. Local Social and Economic Considerations

No local social or economic considerations were identified in the Final EIS. Therefore, no further discussion of this topic will occur in this document.

G. Summary of WSA - Specific Public Comments

During the inventory phase, a few comments were received addressing expansion of the utility line corridor and the existence of unique wildlife values.

After the inventory, comments were received during the wilderness study process. One comment recommended the area be designated wilderness while another comment noted opportunities for solitude and primitive and unconfined types of recreation. One comment noted the groundwater aquifer capability for the Fish Slough area, while another indicated that the boundary transmission line is a visual intrusion.

During the study phase, a public meeting and public hearing were held in association with the draft EIS. The public meeting was held in Markleeville, California, and the public hearing in Bishop, California. Comments were received both orally through the hearing, and in writing during the 90-day public review period. A total of 84 written and oral comments were received. Thirty-four comments supported the Bureau's

no-wilderness recommendation. Forty-two comments supported the all-wilderness alternative, and eight comments supported the partial-wilderness alternative.

Although no Federal agency comments were received specific to this WSA, the Department of Energy, Western Area Power Administration submitted a general written comment requesting the Bureau to provide transmission line corridor space for future construction of transmission lines on public lands.

No State or County agency comments were received specific to this WSA.